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We Claim:

1. A document management extension system for Microsoft Exchange wherein the system merges the functionality of index databases, file repositories and messaging systems using Exchange and leverages the tight integration of Exchange and an NT Server for security and redundancy management.
2. A document management extension system as claimed in Claim 1 wherein the system includes a user interface and this is accessed through dialogs in specific applications or through a find application.
3. A document management extension system as claimed in ~~any~~ <sup>claim 1</sup> ~~previous claim~~ wherein non-Microsoft Office and Office applications including Word, Powerpoint, Binder, Outlook, Eastman(Wang), Image Viewer and Windows Paintbrush are supported by the system.
4. A document management extension system as claimed in Claim 3 wherein when the system transacts with the Exchange

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Server in a standard file open the processes which take place include:

- a document management extension service setting a flag in a document management extension object store by setting the Status Property to Open and by inserting the time and user's name in a Status information property;
  - the document management extension service copying the object from the public document exchange store to the user's mailbox; and
  - the document being copied from the user's mailbox and moved to a local temporary directory for editing by the document management extension user.
5. A document management extension system as claimed in Claim 4 wherein when a document is closed or saved the processes which occur include:

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- moving the document from a local temporary file to the temporary file in an OST file if the server is offline or to a temporary folder in the user's mailbox if the server is online;
  - moving the documents from the user's mailbox to the document management extension store; and
  - for each document, resetting the Status property to available and the Status Information Property to null.
6. A document management extension system as claimed in ~~any~~<sup>claim 1</sup> ~~previous claim~~ wherein when a network or server fail while a document is open, the user is able to continue working even if not aware that the network or server has failed.
7. A document management extension system as claimed in Claim 6 wherein as soon as the network is available, the user's offline file automatically re-synchronises with the user's mailbox on the server.
8. A document management extension system as claimed in Claim 7 wherein the system enables a user to check documents out

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to their local machine using a check out command available in any dialog.

9. A document management extension system as claimed in Claim 8 wherein the system informs a user who attempts to open a document that has been checked out that the document has been checked out and when the document was checked out.
10. A document management extension system as claimed in Claim 9 wherein the system enables the user to select the check out function from the document management extension dialogs and the processes which occur include:
- document management extension setting a flag in the object Store by setting the Status property to checked out and by inserting the time and user's name in Status information property; and
  - document management extension copying the object from the public document management extension store to the user selected location on a physical file system.

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11. A document management extension system as claimed in Claim 10 wherein the system enables a user to check a document in if the user is connected to the network and the processes which occur include:

- the checked-out copy of the document being moved to the document management extension object store and a flag being reset in the document management extension object store, however if the object does not exist in the document management extension store, then it added to the store.

12. A document management extension system as claimed in ~~any~~ <sup>claim 1</sup> ~~previous claim~~ wherein the system is able to be utilised in a Windows 95 (Windows NT) shell application and subsequent revisions of the application, the application undergoing various processes including;

- addition of document management folders to Windows Explorer and Outlook;
- modification to a Start Menu;

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- addition of a system tray to the application.
- addition of further items to a context menu for some types of documents.

13. A document management extension system as claimed in Claim 12 wherein the modification to the Start Menu include:

- addition of a 'In Document Manager' command using a shell extension; and
- addition of a 'Open from Document Manager' command to the Start Bar which launches a document management extension dialog.

14. A document management system as claimed in ~~any previous~~  
~~claim~~ <sup>Claim 1</sup> wherein the In Document Manager command in the Start  
Menu launches an application or system for searching  
document management extension store.

15. A document management system as claimed in Claim 14 wherein the system allows for searching on all document management

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extension properties and allows viewing of object properties and setting of permissions.

16. A document management extension system as claimed in Claim 15 wherein within document management extension dialogs a context menu has an open function which launches the appropriate application and opens a file.
17. A document management extension system as claimed in Claim 16 wherein within document management extension dialogs a context menu has a check out function which is disabled if a document is already checked out.
18. A document management extension system as claimed in Claim 16 wherein within document management extension dialogs a context menu has a check in function which is disabled if a document is already checked in.
19. A document management extension system as claimed in Claim 18 wherein within document management extension dialogs a context menu has a properties function which displays the properties screen and which permits the viewing and editing of a documents properties.

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20. A document management extension system as claimed in Claim 19 wherein within document management extension dialogs a context menu has a Status function which allows the implementation of workflow and includes options of draft or published.
21. A document management extension system as claimed in Claim 20 wherein the system prevents uncontrolled and unauthorised access to its object store.
22. A document management extension system as claimed in Claim 21 wherein a user of the system can set any document level security attribute except delete using a document management exchange interface to the exchange security settings.
23. A document management extension system as claimed in Claim 22 wherein a user is able to alter a document and properties but is restricted from altering permissions or deleting permissions.

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24. A document management extension system as claimed in Claim 23 wherein the system allows a user to conduct a search for a document and view the document but not open the site.
25. A document management extension system as claimed in Claim 24 wherein the system allows for a time-based archiving or deleting such that after a specified time a document can be archived or deleted and the system further allows for the archiving or deleting function to be overridden.
26. A document management extension system as claimed in Claim 25 wherein administrator options supported by the system include:
- creating and deleting types of documents;
  - setting archive properties and/or replication properties in relation to the types of documents;
  - permitting open access on all documents; and
  - searching across the whole of a document management extension organisation.

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32. A document management extension system as claimed in ~~claims~~  
*Claim 30* ~~30 and 31~~ wherein the system includes a document exchange  
extension record viewer which allows a user to retrieve, or  
complete or view or save HTML records management forms.
33. A document management extension system as claimed in ~~any~~  
*Claim 1* ~~previous claim~~ wherein the system allows for a user to flag  
a document management extension object as permanent.
34. A document management extension system as claimed in Claim  
33 wherein the system allows document management extension  
administrators to specify a group of users which can have  
modification rights in respect of all permanent objects.

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